

FORENSIC CHEMISTRY

Bachelor of Science - Chemistry; Forensic Chemistry Concentration

College Humanities & Sciences

Degree Specific Credits: 100

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umn.edu/academics/general-education-requirements>) of the catalog.

Summary

Lower Core Courses	52
General Chemistry	
Organic Chemistry	
Biochemistry and Biology	
Physics	
Mathematics	
Forensic Science and Criminal Justice	
Upper Division Core Courses	28-29
Analytical Chemistry	
Physical Chemistry	
Inorganic Chemistry	
Biochemistry	
Experiential Learning	
Seminar	
Statistics	
Advanced Electives	11
Expressive Art - Public Speaking	3
Social Science - Criminology	3
Ethics	3
Total Hours	100-101

Lower Core Courses

Rule: All courses in all subcategories listed are required

General Chemistry

CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	5
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	5
Total Hours		10

Minimum Required Grade: C-

Organic Chemistry

CHMY 221	Organic Chemistry I	3
CHMY 222	Organic Chemistry I Lab	2

CHMY 223	Organic Chemistry II	3
CHMY 224	Organic Chemistry II Lab	2
Total Hours		10

Minimum Required Grade: C-

Biochemistry and Biology

BCH 110	Intro Biology for Biochemists	3
BCH 111	Intro Biol for Biochemists Lab	1
BIOB 260	Cellular and Molecular Biology	4
Total Hours		8

Minimum Required Grade: C-

Physics

PHSX 215N	Fund of Physics w/Calc I	4
PHSX 216N	Physics Laboratory I w/Calc	1
PHSX 217N	Fund of Physics w/Calc II	4
PHSX 218N	Physics Laboratory II w/Calc	1
Total Hours		10

Minimum Required Grade: C-

Mathematics

M 171	Calculus I	4
M 172	Calculus II	4
Total Hours		8

Minimum Required Grade: C-

Forensic Science and Criminal Justice

CJUS 125N	Fund of Forensic Science	3
SOCI 221	Criminal Justice System	3
Total Hours		6

Minimum Required Grade: C-

Upper Core Courses

Rule: All subcategories must be completed

Analytical Chemistry

Rule: Complete all of the following courses

CHMY 311	Analytical Chem-Quant Analysis	4
CHMY 421	Advanced Instrument Analysis	4
Total Hours		8

Minimum Required Grade: C-

Physical Chemistry

Rule: Choose 1 of the listed courses

CHMY 360	Applied Physical Chemistry	3-4
or CHMY 373	Phys Chem-Kntcs & Thrdynmcs	
Total Hours		3-4

Minimum Required Grade: C-

Inorganic Chemistry**Rule:** Complete the following course

CHMY 401	Advanced Inorganic Chemistry	3
Total Hours		3

Minimum Required Grade: C-

Biochemistry**Rule:** Complete the following courses

BCH 480	Advanced Biochemistry I	3
BCH 482	Advanced Biochemistry II	3
Total Hours		6

Minimum Required Grade: C-

Experiential Learning**Rule:** Choose 1 of the listed courses for 3 credits

CHMY 488	Forensic Research	3
or CHMY 498	Internship/Cooperative Educ	
Total Hours		3

Minimum Required Grade: C-

Seminar**Rule:** Complete the following course

CHMY 489	Forensic Research Seminar	1
Total Hours		1

Minimum Required Grade: C-

Statistics**Rule:** Complete the following courses

STAT 451	Statistical Methods I	3
STAT 457	Computer Data Analysis I	1
Total Hours		4

Minimum Required Grade: C-

Advanced Electives**Rule:** Choose 11 credits from the listed courses. 8 of the credits must be numbered 300 or above

Select 11 credits from the following:		11
BIOB 440	Biological Electron Microscopy	
CHMY 465	Organic Spectroscopy	
CHMY 466	FT-NMR Optn for Undrgrd Rsrch	
CHMY 542	Separation Science	
CJUS 488	Forensic Science the Crime Lab and Beyond	
PHAR 110N	Use & Abuse of Drugs	
Total Hours		11

Minimum Required Grade: C-

Expressive Art - Public Speaking**Rule:** Complete the following course

COMX 111A	Intro to Public Speaking	3
Total Hours		3

Minimum Required Grade: C-

Social Science - Criminology**Rule:** Complete the following course

SOCI 211S	Introduction to Criminology	3
Total Hours		3

Minimum Required Grade: C-

Ethics**Rule:** Complete the following course

CHMY 305E	Ethics, Literature and Writing in the Sciences	3
Total Hours		3

Minimum Required Grade: C-